

ABSTRACT

[0051] A polymeric food spoilage sensor comprises a polymer containing a polyazamacrocyclic transition metal complex. The complex selectively binds biogenic amines, such as cadaverine, putrescine and histamine, which are released by food spoilage microorganisms. The polymer undergoes a detectable color change upon exposure to biogenic amine, thus indicating that food spoilage has probably occurred. In one embodiment, the polymer is molecularly imprinted with the biogenic amine to impart selective binding affinity. The polymer is easily incorporated in common food containers and can be employed in fiber optic detection devices.